IN THE CLAIMS

1. **(Currently Amended)** A particle beam generator, comprising an extracting plate, having an extracting aperture, disposed adjacent a particle source and operable to extract particles from such a source into the extracting aperture to form a particle beam, particle accelerating means operable to accelerate the extracted particles to increase the energy of the beam, and collimating means operable to collimate the particle beam, characterized in that ~~**at least one of the extracting aperture and the accelerating means inhibits lateral expansion of the particle beam to provide a near-parallel particle beam having a diameter less than 100 nm.**~~ **said extracting plate is disposed sufficiently close to said particle source such that this proximity, in combination with the provision of an electric field applied to either side of said extracting aperture to provide a focusing effect on the particle beam passing through the extracting aperture, together inhibit lateral expansion of said particle beam such that it has a diameter of less than 100nm.**

2. **(Previously Presented)** A particle beam generator, as claimed in Claim 1, further comprising focussing means operable to provide, from the laterally inhibited particle beam, a focussed particle beam having a diameter less than 1nm.

3. **(Previously Presented)** A particle beam generator as claimed in Claim 1, wherein the diameter of the extracting aperture is substantially between 5 nm and 500 nm.

4. **(Original)** A particle beam generator as claimed in Claim 3, wherein the diameter of the extracting aperture is substantially between 5nm and 100nm.

5. **(Previously Presented)** A particle beam generator as claimed in Claim 1, wherein the particle accelerating means comprises a plurality of accelerator plates arranged in a stack and electrically isolated from each other, each accelerator plate having an aperture arranged to share a common longitudinal axis with the extracting aperture to form an extended accelerating aperture along which the extracted particles are accelerated on application of a voltage between the extractor plate and a first accelerator plate and between each pair of successive adjacent accelerator plates arranged in the column thereafter.

6. **(Previously Presented)** A particle beam generator as claimed in Claim 1, wherein the extracting plate is a first conductor which is separated from a second conductor by at least one of a resistive and insulator material, and the accelerating means comprises an accelerating aperture which extends from the extractor aperture through the at least one of the resistive and insulator material and through the second conductor, wherein the extracted particles are accelerated on application of a differential voltage between the first and second conductors.

7. **(Original)** A particle beam generator as claimed in Claim 6, wherein the resistance of the at least one of the resistive and insulator materials is substantially between 1 kΩ-cm and infinity.

8. **(Previously Presented)** A particle beam generator as claimed in Claim 5, wherein the diameter the accelerating aperture is substantially between 10nm and 1000μm.

9. **(Previously Presented)** A particle beam generator as claimed in Claim 1, wherein the collimating means is integrally formed with the accelerating means.

10. **(Previously Presented)** A particle beam generator as claimed in Claim 9, wherein the accelerating means includes an accelerating aperture through which the particle beam passes to thereby create an accelerated beam, and wherein the collimating means comprises a conical configuration of said accelerating aperture, the conical accelerating aperture having a diameter increases in the direction of the accelerated beam.

11. **(Previously Presented)** A particle beam generator as claimed in Claim 10, wherein the collimating means comprises at least one aperture having a lesser diameter relative to the accelerating aperture and is disposed on the longitudinal axis thereof.

12. **(Previously Presented)** A particle beam generator as claimed in Claim 1, comprising a particle source integrated therewith.

13. **(Original)** A particle beam generator as claimed in Claim 12, wherein the particle source is a field emission source.

14. **(Previously Presented)** A particle beam generator as claimed in Claim 1 adapted for use with an electron particle source.

15. **(Previously Presented)** A particle beam generator as claimed in Claim 1 adapted for use with an ion particle source.

16. **(Previously Presented)** A near field microscope comprising a particle beam generator as claimed in Claim 1.

17. **(Previously Presented)** A microchip comprising a particle beam generator as claimed in Claim 1.